ILLINOIS POLLUTION CONTROL BOARD
December 12, 1972

ENVIRONMENTAL PROTECTION AGENCY	)	
	)	
	)	#72-215
v.	)	
	)	
WELDON FARMERS GRAIN CO-OP	)	

THOMAS A. GENGEL AND DELBERT HASCHEMEYER, ASST. ATTORNEY GENERALS, ON BEHALF OF ENVIRONMENTAL PROTECTION AGENCY
LAWRENCE EATON, ON BEHALF OF RESPONDENT
EVAN A. STRAWN OF MERKER AND ADLER, ON BEHALF OF INTERVENOR

OPINION AND ORDER OF THE BOARD (BY SAMUEL T. LAWTON, JR.):

Amended complaint was filed against Respondent alleging that between November 3, 1971 and the date of the close of the record, Respondent, in the operation of its Clipper-Randolph Dryer, grain load-out booms, receiving stations and conveyors located in Weldon, Illinois, emitted contaminants into the atmosphere causing air pollution in violation of Section 9(a) of the Environmental Protection Act and violated Rule 3-3.111 of the Rules and Regulations Governing the Control of Air Pollution (Air Rules). The complaint further alleges that Respondent's failure to file a Letter of Intent and an Air Contaminant Emission Reduction Program (Acerp) violated Rules 2-2.22 and 2-2.41 of the Air Rules. We find the evidence sustains the allegations of the complaint with respect to the causing of air pollution, as defined in the Act. We find that the evidence does not sustain the allegations of violation of the Rules as alleged, in that Respondent has adequately rebutted the Agency's proof with respect to particulate emissions based upon standard emission factors, and since no regulatory violation has been proven, Respondent has no obligation to file a Letter of Intent or Acerp as provided by the Rules.

Before discussing the merits of the case, it is necessary to dispose of certain procedural matters raised by the pleadings and motions filed. The Environmental Protection Agency's complaint was filed on May 22, 1972 and later amended pursuant to motion on August 24, 1972. Answer to the amended complaint was filed denying the essential allegations of the amended complaint. On the same day, two motions to dismiss were filed by Respondent, the first motion attacking the basic air regulations as being arbitrary, capricious and unreasonable, in failing to distinguish between existing physical conditions for different contaminant sources for different geographical areas, failing to distinguish between elevators in metropolitan

and country areas and failure of the Board to consider the technical feasibility and economic reasonableness in the promulgation and enforcement of the regulation under consideration. The motion further asserts that the regulations are void in that they fail to consider the effect of contaminants from different sources on plant, animal and human life and property, regulate emissions from processes instead of emissions into the air "off of respondent's premises" and that requiring reduction of emissions would impose an unreasonable burden upon Respondent and deprive it of property without due process of law. The second motion to dismiss contends that the rules requiring the filing of a Letter of Intent and Acerp places an unreasonable burden on Respondent and deprives it of equal protection of the laws. We find both motions wholly lacking in merit and accordingly deny them.

The Environmental Protection Act continues in effect all regulations promulgated by the Air Pollution Control Board until repealed, amended or superceded (Sec. 49(c). Section 33(c) of the Act with respect to enforcement orders provides that in making any order or determination, the Board shall take into consideration all facts and circumstances bearing upon the reasonableness of the emissions, together with the character and degree of injury to the protection of the health, general welfare and physical property of the people, the social and economic value of the pollution source, the suitability of the pollution source to the area in which it is located and the technical practicability and economic reasonableness of reducing or eliminating the emissions. The totality of the statutory and regulatory framework compels the Pollution Control Board to give consideration to all of the elements alluded to in Respondent's motions which it has done. Nor does any reason suggest itself why the Letter of Intent and Acerp provisions, a program in effect for over five years, constitute an undue burden as applied to Respondent.

Petition to intervene was filed by the Illinois Agricultural Association which was opposed by the Agency but permitted by order of the Hearing Officer. Hearings were held in Clinton, Illinois on October 2, 3 and 17, 1972. Briefs were filed by all parties at the close of the hearing.

Section 31(c) provides that the complainant has the initial burden of establishing violation of any provision of the Act or Regulation and once such proof has been made, the burden shall be upon Respondent to show that compliance with such regulation would impose an arbitrary or unreasonable hardship. Respondent has successfully met the Agency's contentions with respect to violation of the particulate and Acerp regulations, but has not overcome the

proof that air pollution has resulted in violation of the statute nor has it adequately demonstrated that elimination of such pollution would impose upon it an arbitrary or unreasonable hardship.

Petitioner operates a grain elevator in Weldon, Illinois, storing corn, soy beans, oats and wheat. Grain is brought to the elevator by truck, taken from the truck by mechanical process, conveyed to specified portions of the facility depending on what grain is involved, dried, stored, removed from the storage location and placed in freight cars or trucks for ultimate delivery to consumers. Dust and particulate emissions occur at every stage of the operation. Frank Rudisill, Manager of the grain company, testified at length with respect to the operation of the facility (R.30 through 57). The operation is described as a place in which farmers bring their grain to market for storage and ultimate disposition. Approximately two million bushels of grain were stored during the past year, of which 1.4 million were corn, 300,000 were soy beans and the balance wheat and oats (R.31). While approximately one-half of the grain is received in the fall subsequent to harvest, the operation of the elevator continues throughout the entire year. As many as 280 truckloads are received in a single day during the harvest season. Truck capacities range between 100 and 400 bushels per truck. Upon arriving at the grain elevator, the grain is weighed and its moisture content determined. The grain is dumped from the truck into a pit where it is fed by gravity into "legs", carried to the top of the elevator and then by gravity feed, transported to a specified bin. There are seven dumping areas at the elevator, although only five are in general use (Joint Ex. 1, R.36-37). Cyclone equipment has been installed at the legs and an aspirator has been installed on the Clipper-Randolph Grain Dryer (R. 39).

After such storing and processing as takes place within the elevator, the grain is loaded into railroad cars or trucks through load-out spouts which are equipped with canvas bags to minimize dust emissions.

The allegations of the complaint fall in two general classifications and require separate treatment. The Agency's contentions with respect to air pollution are premised on the nuisance allegedly caused to adjacent residents and the downtown area generally, as a consequence of Respondent's operation. In this respect, we believe the Agency has sustained its burden of proof, which has not been overcome by Respondent's evidence. Proof with respect to violation of the particulate regulations was based on the employment of standard emission factors by the Agency which we have held on many occasions, to be a proper means of establishing violation which, however, can be rebutted by persuasive evidence on behalf of the Respondent.

See EPA v. George E. Hoffman & Sons, Inc.,#71-300(Dec.12,1972)5 PCB , see Environmental Protection Agency v. Norfolk & Western Railway, #70-41, 1 PCB , (May 26, 1971). With respect to this aspect of the complaint, we believe Respondent has successfully rebutted the testimony of the Agency based on standard emission factors, thereby negating a finding of violation of particulate regulations and precluding the need for compliance with the Letter of Intent and Acerp provisions. Each aspect of the complaint will be considered separately.

Numerous witnesses living in the vicinity of the plant testified to the impact upon their daily lives consequential to the elevator's operation (R. 64 through 172). Contrasted with other cases, there is no need to speculate as to the source of the emissions, as witnesses observed the particulate and dust generation eminating from the various loading and unloading operations inherent in the elevator operation. Chaff and beeswings were the principal dust emissions. Witnesses in the vicinity of the elevator testified to their inability to ever keep their windows open, the thick dust settling on their houses and property (R. 69), the constant need for cleaning their properties, the cloud of dust observed over Section A of the plant (R. 99) seen on various occasions over an eight-year period, the need to skim off the chaff and dust from the swimming pool and the observed emissions in the downtown area (R. 105). No useful purpose would be served by particularizing the observations of each neighboring witness. The totality of the observed evidence manifests that Respondent's operation, particularly in its loading and unloading areas, has eminated dust, chaff and beeswings emissions that have constituted a severe burden on the homes of nearby residents and carried over into the downtown area. The difficulty in breathing, the inordinate amount of cleaning necessary to keep their homes orderly, the preclusion of outdoor activities and the need to keep windows closed throughout the entire year clearly constitute the degree and character of interference with enjoyment of life and property that is contemplated by the air pollution definition within the Environmental Protection Act.

Coupled with this, we find that Respondent could take significant steps at minimum cost to ameliorate this condition. Maintenance and improvement of existing facilities such as the canvas bags in the loading area would go far to abate this nuisance. Testimony with respect to the need for an expenditure of $113,000 to install new air pollution abatement equipment indicates that this figure is far more than necessary than needed to eliminate the nuisance since by this proceeding, we are not finding a violation of the regulations, but only a violation of the air pollution provisions of the statute. Respondent's thrust should be directed toward repairing and improving its existing facilities including the maintenance of the primary

cyclones and installation and repair of its canvas bags used in minimizing the dust emissions from loading and unloading operations. In our view, the abatement of the primary nuisance can be achieved with relatively slight expenditure and by improved housekeeping practices without the need for installation of expensive new air pollution abatement equipment. We shall order Respondent to submit a program to achieve this result and ask for its evaluation by the Environmental Protection Agency.

With respect to violation of the particulate regulations, we believe the Agency has made initial proof of violation based on standard emission factors only with respect to the Clipper-Randolph Dryer, which the Respondent has successfully rebutted. We believe that the computations for violation from the shipping and receiving sources and the transfering and conveying sources to be based on the activities of a too speculative nature to justify a finding of violation. Accordingly, there is no need to go into the evidence presented by Respondents relative to the computation and validity of the standard emission factors employed. Each area of activity will be considered separately.

The Environmental Protection Agency endeavored to prove violation of the particulate regulations with respect to the Clipper-Randolph Grain Dryer, the conveying and transferring equipment and the receiving and shipping operations (R. 191) using standard emission factors. We have held in prior cases that although not specifically covered by the old Air Rules as they are in the newly-adopted emission regulations, standard emission factors may be used to prove a violation of particulate regulations which proof, however, is subject to rebuttal. Environmental Protection Agency v. Lindgren Foundry Co., #70-1, 1 PCB 11, (September 25, 1970); Environmental Protection Agency v. Norfolk & Western Railway, #70-41, 1 PCB , (May 26, 1971). Emission factors with respect to country elevator sources are the following:

Drying	-	7 pounds per ton
Shipping or Receiving	-	5 pounds per ton
Transferring and Conveying	-	3 pounds per ton

based upon Table 6-4 of AP-42 "Compilation of Air Pollutant Emission Factors". Using these factors, the maximum process operating rates for compliance calculated by the Agency are the following (R. 208-209):

Drying	--	33.2 bushels per hour
Shipping and Receiving	--	19.57 bushels per hour
Transferring and Conveying	--	92.14 bushels per hour

Assuming a 40% collection efficiency for the settling chamber of the Clipper-Randolph Dryer and a rated capacity of 1,000 bushels per hour of the dryer, the calculated emissions would result in 117 pounds per hour against an allowable rate of 38.1 pounds per hour. Respondent countered this testimony by evidence of tests performed on a similar Clipper-Randolph Dryer of twice the capacity, showing an emission factor of .99 pounds per ton (EPA Ex. 7) as contrasted with the standard emission factor of seven pounds per ton found in AP-42 employed by the Agency. This test was performed in February of 1972. The dryer in question had the same type of pre-cleaner as Respondents, but also an exhaust filter which was accounted for in the test. With an emission factor of .99 pounds per ton as applied to the Respondent's dryer, computed emissions would be 27.8 pounds per hour, which would be below the maximum allowable emission rate of 38.1 pounds per hour (R. 194) and indicate compliance of this facility with the applicable regulations.

The Agency endeavored to demonstrate violation of the particulate regulations with respect to the shipping and receiving process by showing that the Respondent could receive as many as 280 loads of grain per day (R. 33) from vehicles ranging from 100 to 325 bushels each. Based upon a representation that these vehicles are unloaded in a minute and one-half or two minutes, the Agency concluded that such evidence establishes that the receiving points exceed the 19.57 bushels per hour process rate permissible. We find the computation involves too many assumptions and speculations with respect to truck loading, frequency of operation and manpower to justify a finding of violation from this operation.

Likewise, with respect to the transferring and conveying equipment, the Agency's computation has failed to take into account the efficiency of the cyclones employed in the legs, and accordingly, the ultimate emission rate has not been shown. We do not feel that the Agency has established violations of the particulate regulations based on the standard emission factors. To the extent that it has established a prima facie case with respect to the Clipper-Randolph Dryer, Respondent has successfully rebutted this showing. With respect to the shipping and receiving operations and the transferring and conveying facilities, we do not believe that the initial burden has been established to demonstrate a violation. We do not

fault the Agency in this respect but recognize the extreme difficulty in establishing violations through the use of standard emission factors for processes that are, in part, manual, diversified in character and spread out in location, as distinguished from a single mechanical facility with rated operation.

We find Respondent not to be in violation of the particulate regulations or the provisions for filing of a Letter of Intent and Acerp. However, the nuisance created by Respondent's operation must be abated and we will direct that it file a program to correct this situation, to be approved by the Environmental Protection Agency.

This opinion constitutes the findings of fact and conclusions of law of the Board.

IT IS THE ORDER of the Pollution Control Board:

1. Respondent, Weldon Farmers Grain Co-Op, is found not to be in violation of Rules 2-2.22, 2-2.41 and 3-3.111 of the Rules and Regulations Governing the Control of Air Pollution based upon the evidence presented in this proceeding.

2. Weldon Farmers Grain Co-Op is found to have violated Section 9(a) of the Environmental Protection Act by causing air pollution as therein defined. Penalty in the amount of $500.00 is assessed against Weldon Farmers Grain Co-Op for the aforesaid violation. Payment shall be made by January 16, 1973 by check or money order to: Fiscal Services Division, Environmental Protection Agency, 2200 Churchill Drive, Springfield, Illinois 62706.

3. Within 30 days from the date hereof, Weldon Farmers Grain Co-Op shall submit to the Board and the Agency, a program for abatement of the air pollution and nuisance caused by its facility as demonstrated by the record in this proceeding. The Agency shall evaluate the program so submitted and submit its report thereon to the Board within 15 days after receipt thereof. The Board retains jurisdiction of this cause for such other and further orders as may be appropriate.

I, Christan Moffett, Clerk of the Illinois Pollution Control Board, certify that the above Opinion and Order was adopted on the 12th day of December, 1972, by a vote of 3 to 0.

Christan L. Moffett